



LINCOLN-LANCASTER COUNTY COMPREHENSIVE PLAN

This section summarizes the pertinent elements of the Lincoln – Lancaster County Comprehensive Plan (2002) to indicate how that document would guide or affect transit, bicycling and walking. Special attention is paid in this review to the population forecast, growth management and urban design aspects of the plan.

The section following this one summarizes the pertinent features of the transportation chapter of the Comprehensive Plan.

Overview

The Comprehensive Plan includes most of the fundamental elements normally considered necessary for the growth of travel alternatives to the single-occupant automobile. These typically include:

- ◆ Strong population growth
- ◆ Staged, contiguous urban growth
- ◆ Emphasis on creating dense, mixed- and multiple-use centers (housing, office, retail)
- ◆ Interest in making those and other centers more walkable
- ◆ Serving those centers with transit
- ◆ An extensive network of off-road multiple-use paths
- ◆ Interconnected local and collector streets
- ◆ Neighborhoods that each contain a variety of housing types and densities along with neighborhood-oriented businesses
- ◆ Neighborhoods with an elementary school and/or park near the middle
- ◆ Growth of a Downtown core that is the major regional center for office employment
- ◆ A major university campus
- ◆ Emphasis on promoting redevelopment, infill development, greater density and increased diversity in the older districts and neighborhoods (including a major and immediate demonstration project in the Antelope Valley)
- ◆ Strategies for promoting walking and bicycling to and from bus stops.

The single most important task may be for Lincoln to find a way to accomplish the creation of large, dense, walkable centers (along major bus routes) that have either significant amounts of

employment and/or housing and serve them with transit. Downtown is one such center. Other, emerging centers were identified in the plan.

The street patterns in recent residential neighborhoods have lacked collector road connections across the neighborhoods, inhibiting bicycle trips and transit service.

Finally, although Lincoln has a couple features that promote bicycling, namely its extensive and growing trails network and its requirements for interconnected local streets, planning for striped bicycle lanes on its major streets is absent.

Forecast of Population and Urban Area

The Comprehensive Plan assumes an average annual population growth rate of 1.5 percent over the next 50 years, which would more than double the City's population by 2050. It is stated in the plan that a 50 year horizon is not unrealistic for planning urban form and growth management.

The 250,000 additional residents by the year 2050 could translate into an additional 75 square miles of urban development if the trends of the past three decades continue.

Table 33. Forecast Population Growth

Year 2000 Population	225,000
Projected Population Increase 2000-2050	250,000
2050 Population	475,000

This growth will likely include expansion of Lincoln's ethnic and racial minority groups and, especially, its elderly population.

Only about ten percent of the Lancaster County population is forecast to live outside Lincoln, consistent with the present distribution.

Growth Staging

The Comprehensive Plan states that Lincoln's growth should generally occur in multiple directions around the current urban area in managed and contiguous patterns. Lincoln's current sense of community has been based on incremental, compact growth built on the foundations of established neighborhoods, and future growth should continue that pattern.

The growth management plan calls for public services to be extended in a staged manner and for urban land development to follow those improvements.

The Comprehensive Plan includes three tiers of growth for the City of Lincoln. Tier I reflects the Future Service Limit, where urban services and inclusion in the City limits are anticipated by 2025. Infrastructure planning, especially for water and sanitary sewer, can reach beyond the 25 year time horizon to 50 years and further. Tier II respects this extended planning horizon by showing areas where long-term utility planning is occurring today with the expectation that these areas will follow Tier I as the next in line for urban growth. Tier III reflects an even more



distant planning area – both in time and geography. Little active detailed planning of utilities or service delivery is likely to occur in the near term in Tier III.

Tier I: Lincoln's near-term growth area. Generally a 40 square mile area that could reasonably expect urban services within the next 10 to 25 year period. Locations presently without urban services, including locations either contiguous to present development or just beyond. Includes areas within the Future Service Limit.

Tier II: An area of approximately 46 square miles intended to serve these purposes: (1) to define the geographic area the City is assumed to grow into immediately beyond the 25 year time frame of Tier I; (2) to serve as the basis for long-term, advanced utility planning and (3) to act as a secondary reserve area for urban growth should the Tier I area development occur more quickly than assumed for the 25 year period.

Tier III: Provides an approximately 98 square mile area for Lincoln's longer term growth potential – perhaps 50 years and beyond. This would take the Lincoln urban area beyond the planned east and south Beltway. While eventual urbanization of this area is expected, the Tier III area extends well beyond any urban-style development envisioned in the current plan. No active development or infrastructure planning should occur in Tier III within the 25 year planning period of this plan.

Neighborhood Design

The neighborhood design principles in the Comprehensive Plan are supportive of transportation alternatives. Here are those most pertinent:

- ◆ Encourage a mixture of housing types – detached, townhouses, apartments – within each major neighborhood
- Multiple-family housing near commercial areas
- ◆ Pedestrian orientation; shorter block lengths; sidewalks on both sides of the street
- Public land uses (elementary schools, parks) as centers of the neighborhood; parks and schools should share sites.

Trails and Greenways Network

Lincoln's system of multiple-use paved paths is supplemented by a regional plan for open space, which may also include bicycling and walking paths. The existing and future trails network, while extensive tends to be concentrated in the Salt Creek corridor and its tributaries (some of which were also formerly railroad lines).

Many future trails are planned to be located within the right-of-way of arterial, Section-line roads and would have a distinctly different character than those in the stream valleys and abandoned rail corridors.



However, the roadside paths will provide the north-south and east-west grid connectivity lacking in the system based on waterways and railways.

The network of urban trails and greenways will be supplemented by a regional system of interconnected linear public open space called the Salt Valley Heritage Greenway. This system would run down the length of Stevens Creek, then up Salt Creek to Wilderness Park, Roca and Hickman, then link cross country back to Stevens Creek.

This network lacks two key bicycling elements:

1. Striped on-street bicycling lanes along the major streets
2. Routes across square-mile neighborhoods that are more direct and understandable than the present curvilinear patterns.

Figure 32. Lincoln Area Detail from the Lincoln – Lancaster County Land Use Plan

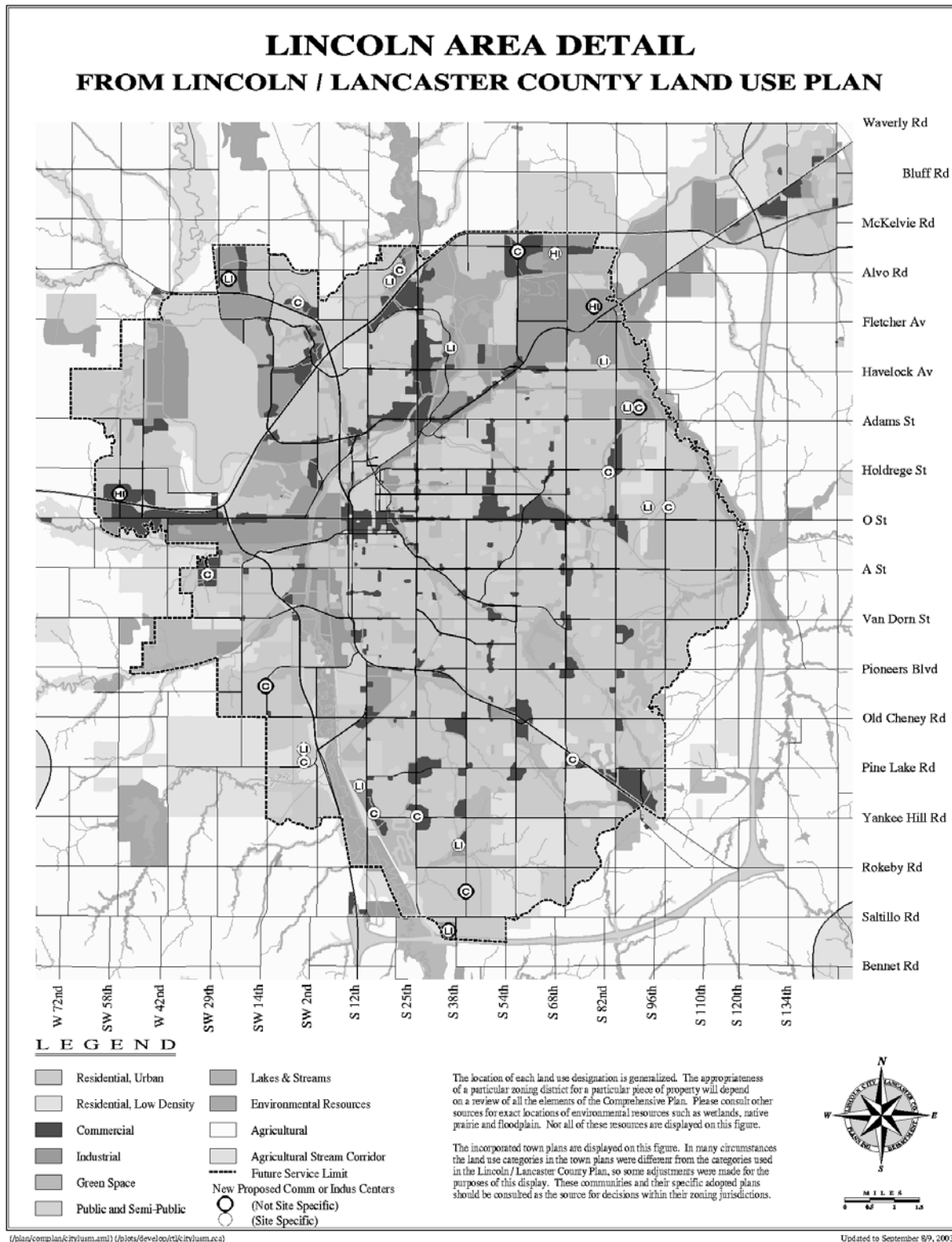


Figure 33. Urban Growth Tiers

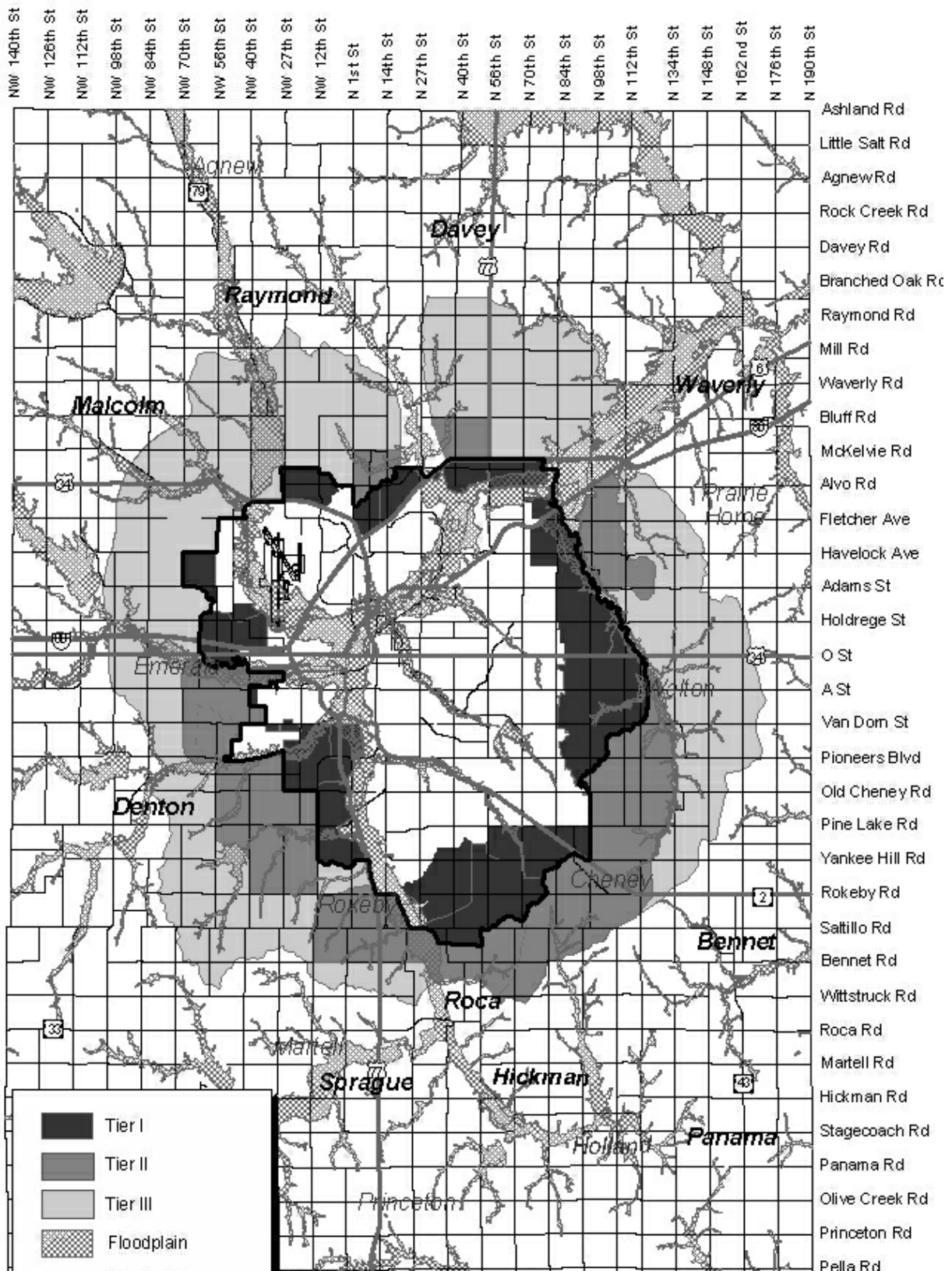


Figure 34. Lincoln Area Current and Future Trails Network

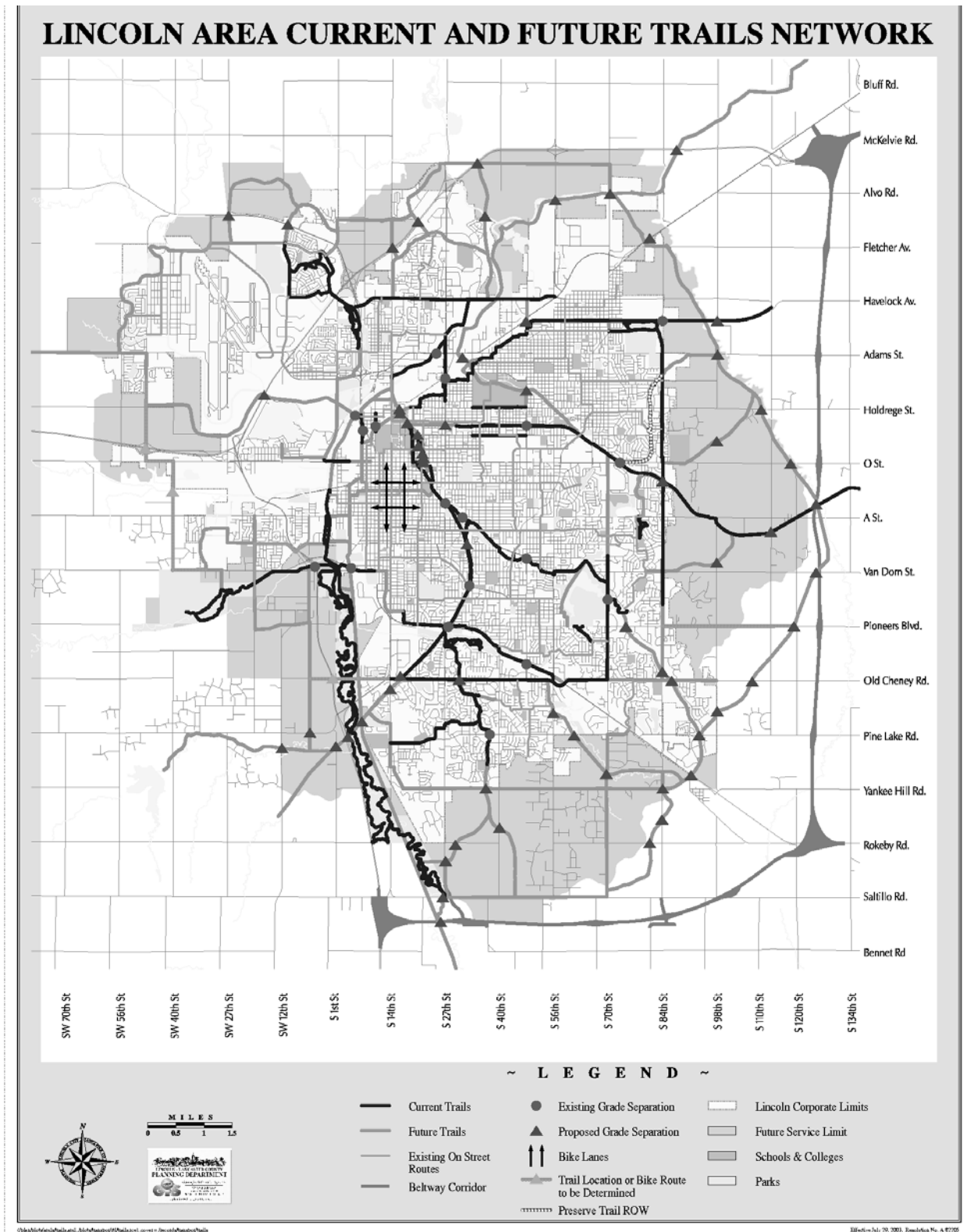


Figure 35. Existing and Proposed Commerce Centers

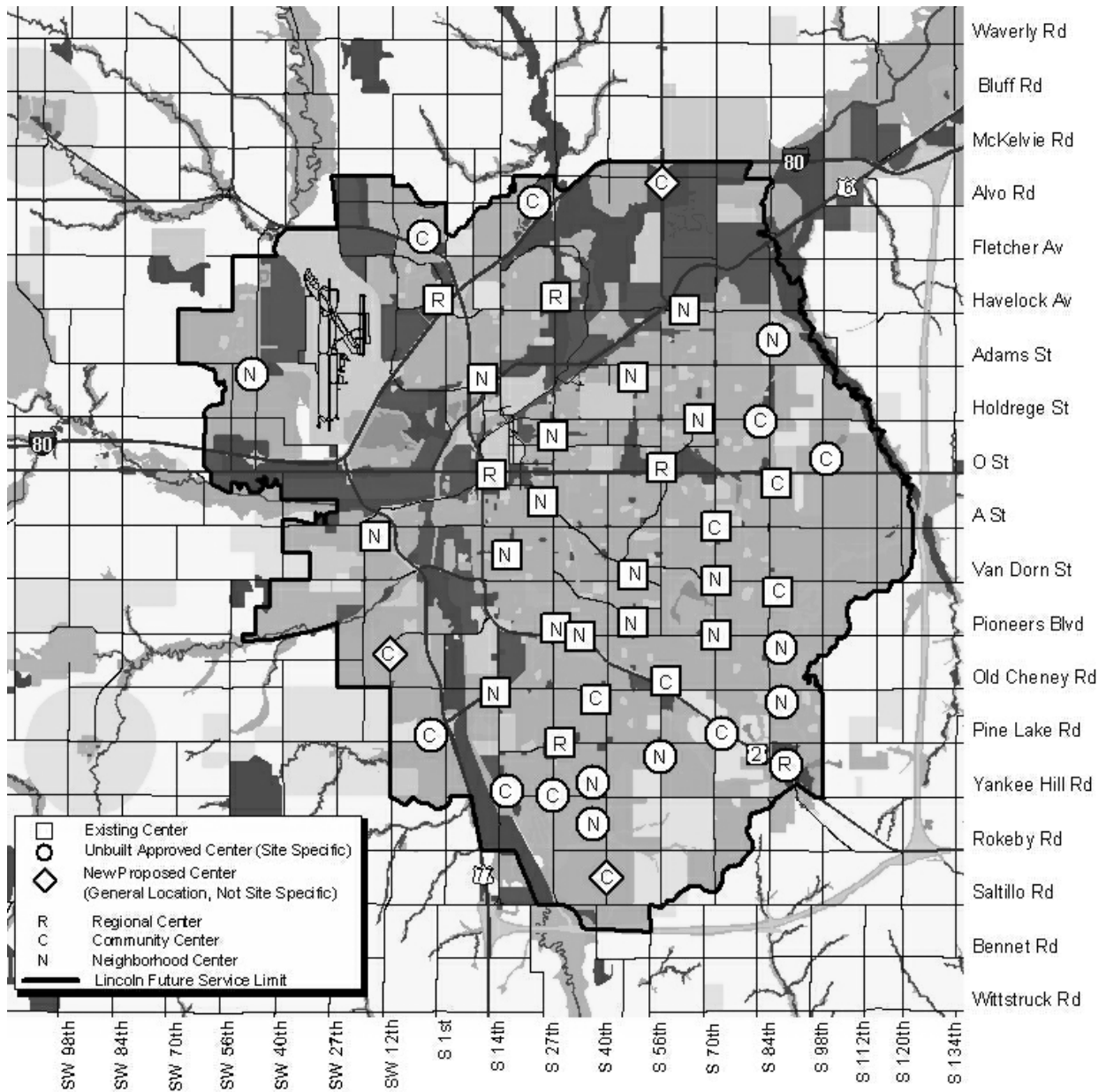
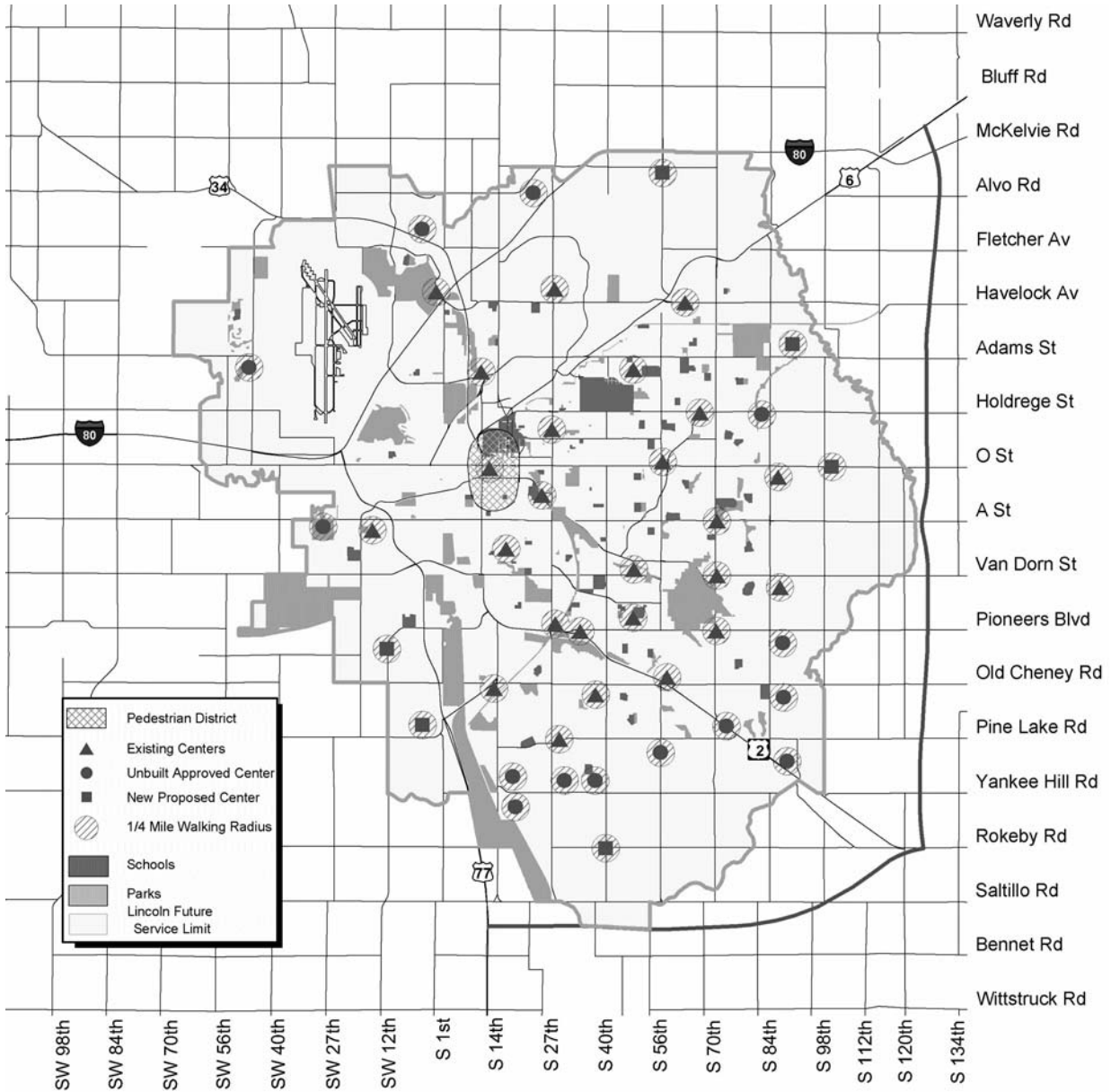


Figure 36. Pedestrian Activity Centers Plan



LONG-RANGE TRANSPORTATION PLAN

The Mobility and Transportation chapter of the Lincoln-Lancaster County Comprehensive plan serves as the federally-required Long-Range Transportation Plan for the Lincoln Metropolitan Planning Organization.

The Mobility and Transportation chapter of the Lincoln-Lancaster County Comprehensive Plan emphasizes the importance of a balanced and sustainable transportation system that not only provides mobility but helps create an attractive city. It states that while the transportation system must function well for private autos and trucks, it "should also establish public transportation, bicycling and walking as realistic alternatives now and in the future." Lincoln is slowly working toward that challenging goal with this Multi-Modal Transportation Study and other initiatives.

Transit Principles

The Transportation Plan calls for transit-friendly development that includes:

- ◆ Direct and continuous pedestrian connections to and from the transit stops
- ◆ Mixed-use, high density development near transit stops
- ◆ Development designs supportive of transit riders.
- ◆ A walkable environment among the activities in the immediate vicinity of the transit stops

The transit plan is focused on Downtown as the center of activity and major concentration of trip ends.

StarTran route planning should:

- ◆ Near Term: Maintain the current radial network to Downtown and provide supplemental service to other portions of the urban area with convenient transfer options.
- ◆ Long-Term: Expand the modified grid system while maintaining the productive elements of the radial system serving Downtown. Reallocate less productive radial service into grid services by targeting emerging mixed-use activity centers and corridors.

The Comprehensive Plan calls for much of the non-residential development to occur in "centers" across the city. These "commerce centers" would contain a mixture of retail, office, services and residential development with some light manufacturing and warehousing in selected circumstances. Commerce centers are differentiated from Industrial Centers, which have more industry, trucking and noise. Commerce Centers include Regional Centers (Downtown), Community Centers and neighborhood Centers.



The plan calls for a mixture of land use types, a pedestrian orientation and transit opportunities. For Lincoln to become more oriented toward bus transit, bicycling and walking, the Community and Neighborhood Centers will have to increase their density, diversity, size and walkability. They will have to each be served by bicycle lanes, bicycle paths, and sidewalks. Presently, the commerce centers are highly auto-oriented, and some have little or no chance of being served by other modes.

The Plan also identifies existing, emerging and planned Regional and Community centers, a few of which are listed here as examples:

- ◆ Regional Centers: UNL Technology Park
The North 27th and Superior Street Subarea
The South 84th Street and Highway 2 area.
South Pointe (Pine Lake Road at 27th Street)
- Community Centers: Firethorn / Lincoln Benefit Life Office Park
State Farm Office Campus at South 84th and O Street
Williamsburg Village (South 40th and Old Cheney Road)
Stonebridge Creek (North 27th and Interstate 80)
East O Street in the vicinity of 90th to 104th Streets

Pedestrian Districts and Centers

Pedestrian centers are essential to the idea of a more transit-oriented community.

Pedestrian Districts include areas such as Downtown (including the university campus), University Place, College View and Havelock. Pedestrian Centers tend to be located along arterial roads and often have strip commercial neighborhood shopping centers.

Safe and convenient sidewalks are essential to the walking environment in all of these locations. Unfortunately, most of them tend to be overly oriented to the auto at this time, with the exception of Downtown. More could be done in the future to retrofit and intensify these and other pedestrian areas if Lincoln is to achieve a gradual shift from its reliance on the auto.

Interconnected Streets and Sidewalks

The principle of interconnected streets and sidewalks is enunciated in the Residential Area Plan and in the Mobility and Transportation Plan. This feature is very supportive of both bicycling and walking.

In practice, while local streets are being fully connected within each square mile, there is no clear and direct path across the square mile neighborhood because of the highly curvilinear street pattern.

Beltway

The East and South Beltways are a planned four-lane circumferential highway network around the City of Lincoln. (The highway will be south of Saltillo Road and east of 120th Street.)



Of the two beltway alignments, the South Beltway will be built first, within the first half of the planning period. This improvement is considered a committed City project.

Proposed Beltway interchange locations are at:

South Beltway:

- ♦ South Beltway and US 77
- ♦ 30th Street
- ♦ 68th Street
- ♦ South 84th Street
- ♦ Nebraska Hwy. 2

East Beltway:

- ♦ Interstate 80
- ♦ Fletcher Avenue
- ♦ Adams Street
- ♦ "O" Street
- ♦ Pioneers Boulevard
- ♦ Pine Lake Road
- ♦ Nebraska Hwy. 2

Antelope Valley Project

Antelope Valley involves a partnership of the City of Lincoln, the Lower Platte South Natural Resource District, and the University of Nebraska-Lincoln and envisions a multi-lane (four to six lanes) boulevard with dual left-turn lanes and a landscaped center median. The project includes several major flood control improvements.



COMPARISON WITH SIMILAR CITIES

Selection of Peer Cities

Several cities were selected with which to compare Lincoln on characteristics of transit service, funding and cost-effectiveness.

Lincoln, Nebraska, is a mid-size urban area (2000 Census population: 226,582) that serves as a state capital and provides home to three universities and several colleges. An initial list of comparison (or "peer") cities was created by selecting urban areas with a population between 150,000 and 400,000. Further screening eliminated those that do not share Lincoln's role as a government center or a university community.

The final list of peer cities was created by using these criteria:

- ◆ Year 2000 population is between 150,000 and 400,000
- ◆ State Capital
- ◆ Home of at least one accredited university

The fourteen urbanized areas (including Lincoln) that matched the criteria are listed and described in Table 34.

Table 34. Peer Cities of Lincoln

Urban Area	State	Population	Land Area (Sp. Miles)	Population per Square Mile	Enrollment at Largest College or University	Region of U.S.
Springfield	IL	153,516	87	1,762	< 5,000	Midwest
Charleston	WV	182,991	113	1,614	< 5,000	East
Montgomery	AL	196,892	99	1,994	< 5,000	South
Tallahassee	FL	204,260	114	1,794	20,000+	South
Salem	OR	207,229	69	2,994	< 5,000	West
Springfield	MO	215,004	114	1,894	15-20,000	Midwest
Lincoln	NE	226,582	78	2,901	20,000+	Midwest
Lexington (1)	KY	250,994	70	3,586	25,000+	South
Jackson	MS	292,637	161	1,819	15-20,000	South
Lansing	MI	300,032	137	2,192	20,000+	Midwest
Madison	WI	329,533	114	2,893	20,000+	Midwest
Little Rock	AR	360,331	206	1,753	10-15,000	South
Harrisburg	PA	362,782	208	1,741	10-15,000	East
Des Moines	IA	370,505	140	2,640	5-10,000	Midwest

(1) Not a state capital

Other urban areas considered but not recommended were:

- ◆ Sioux Falls, SD- population is below 150,000 and it is not a state capital
- ◆ Tulsa, OK - population is above 400,000 and it is not a state capital.

Comparisons

The following tables and text describe the relationship between Lincoln and the cities listed above on these characteristics:

- ◆ Demographics
- ◆ Highway system
- ◆ Regular transit service
- ◆ Demand-responsive transit service
- ◆ Transit funding

Summary of Findings

Demographics

Lincoln's population is in the mid range and its land area is somewhat smaller than the thirteen cities selected for comparison. However, its population density (expressed as persons per square mile) is above the peer city average, which is a good characteristic for transit ridership, bicycling and walking.

Highway System

Although Lincoln is near the peer city average for its total number of road miles, it is well above average for road miles per capita and per land area. On the other hand, Lincoln is below the peer cities average for the number of miles driven daily, especially on freeways. This discrepancy may indicate that Lincoln has many miles of road that are not as heavily used as those of its peers. It is also reflective of the fact that Lincoln has relatively few miles of freeway.

Regular Transit Service

Lincoln is below the peer cities average on the measures where it would want to be higher than average, such as revenue miles per square mile and capita, and passengers per revenue hour, revenue mile and capita. Likewise it is above average on expense per passenger, revenue hour and capita.

Demand-Responsive Transit Service

Similar to its situation with regular transit service, Lincoln is far below the average of its peer group for measures such as revenue miles per square mile of city and per capita, but only slightly below average for passengers per revenue hour and per revenue mile. It is above average for expense per passenger and per revenue hour, but below on expense per capita.

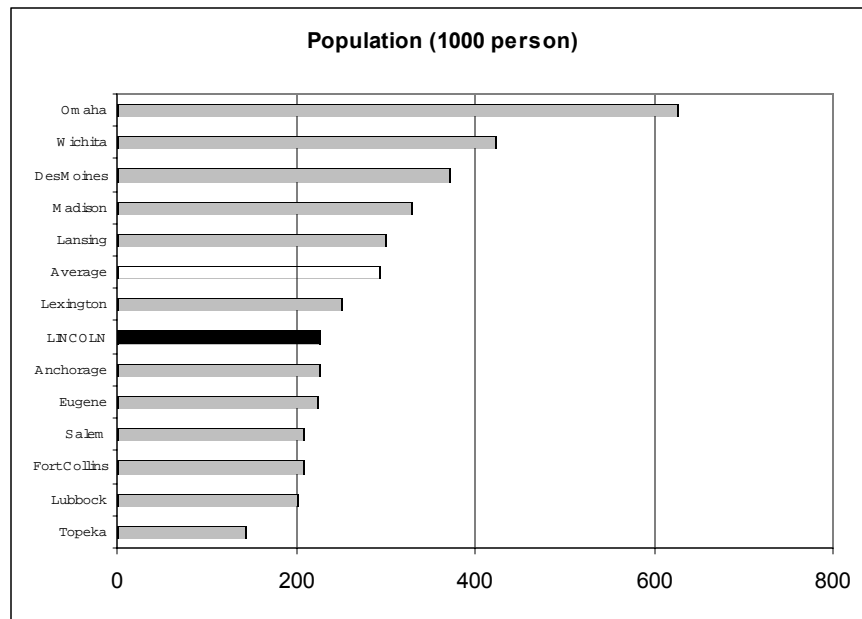


Transit Funding

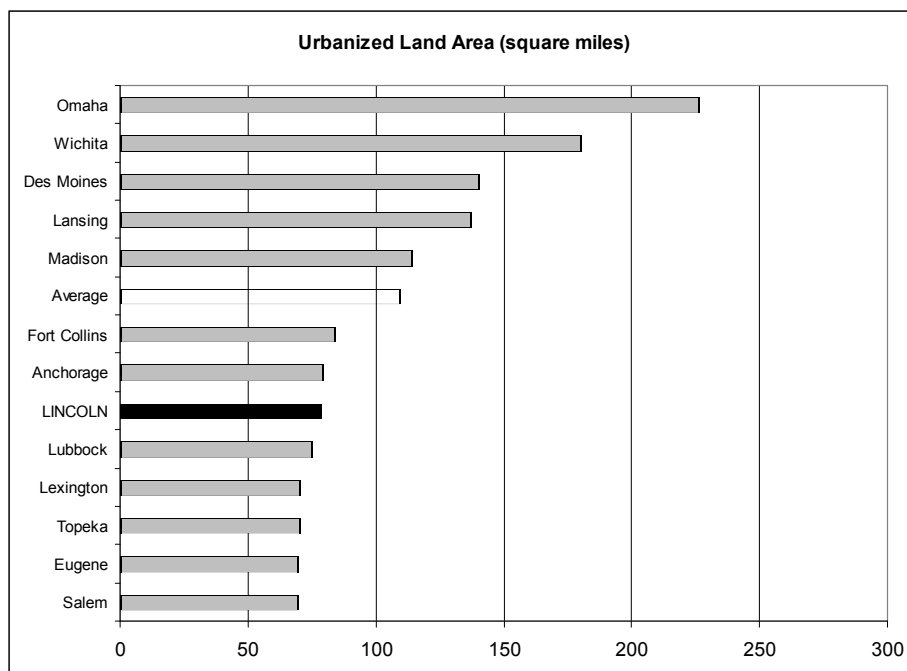
Lincoln falls well below the average of the peer cities in farebox recovery (the percentage of transit costs paid by passengers), state funding and federal funding.



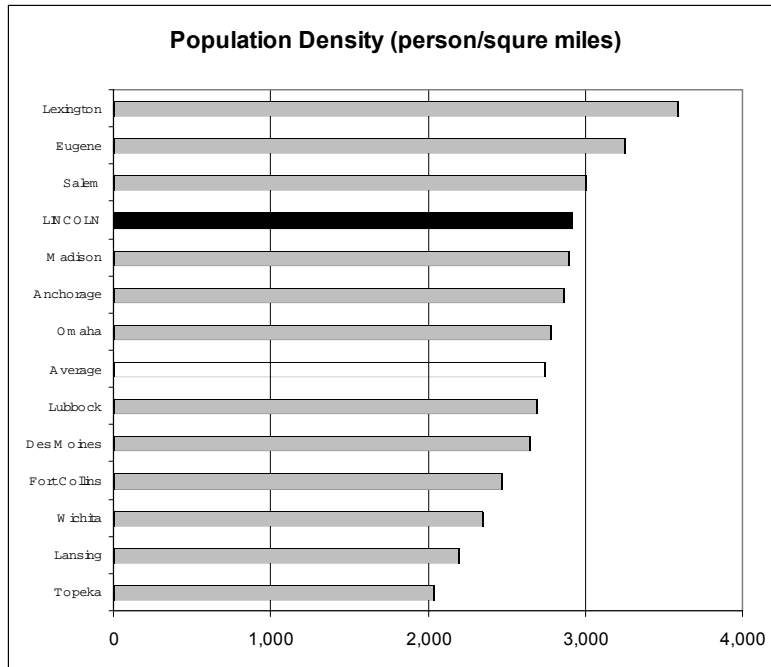
Demographic Data



Lincoln's population was 226,582 in year 2000. This ranks 7th among its peers and is 23 percent below the peer average.

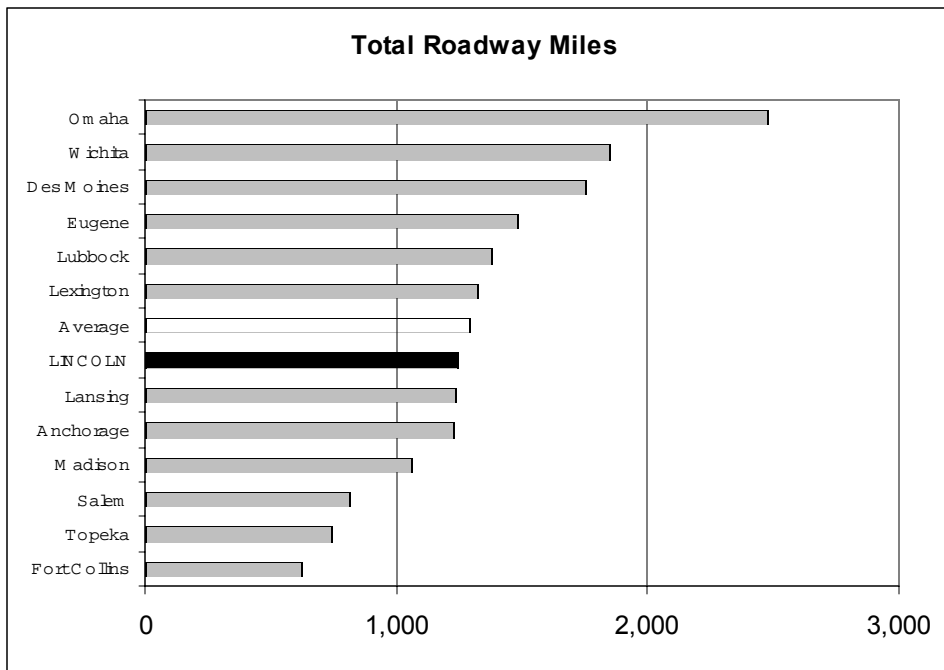


Lincoln's urban land area is 78.12 square miles. This ranks 8th among its peers and is 29 percent below the peer average.

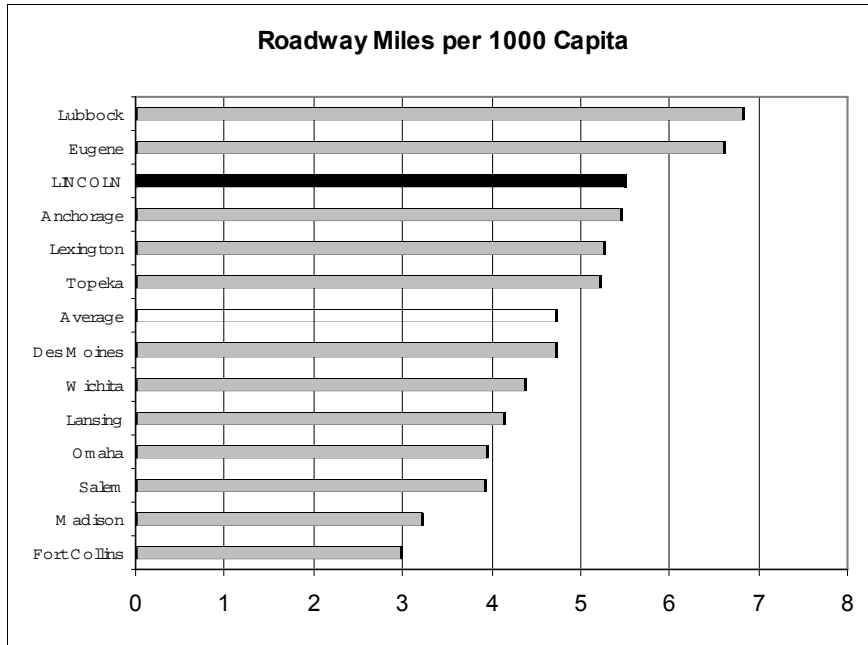


Lincoln's population density is 2905 persons per square mile. This ranks 4th among its peers and is 29 percent above the peer average.

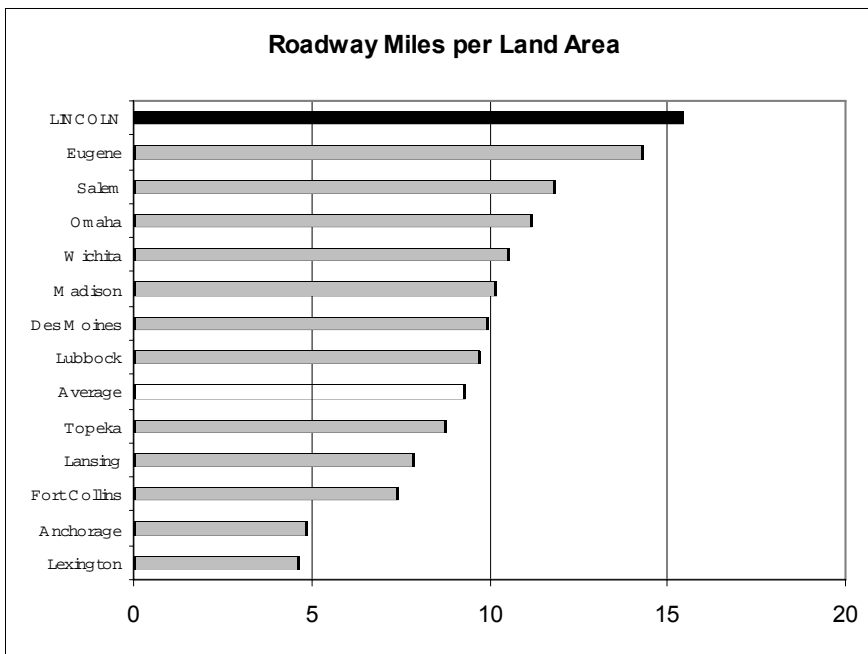
Highway System Data



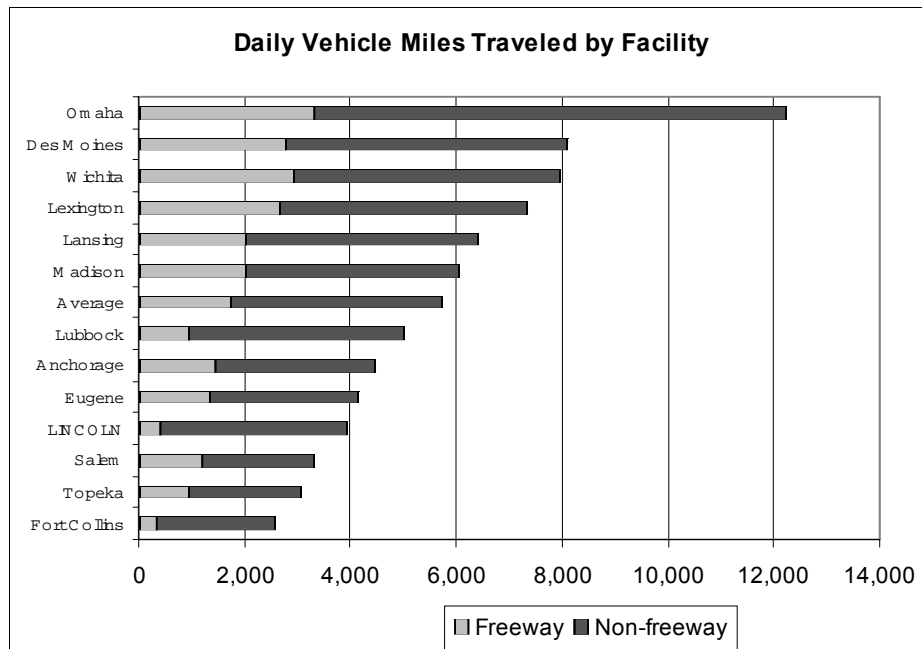
In Lincoln, the length of the roadway system is 1245 miles. This ranks 7th among its peers and is 4 percent below the peer average.



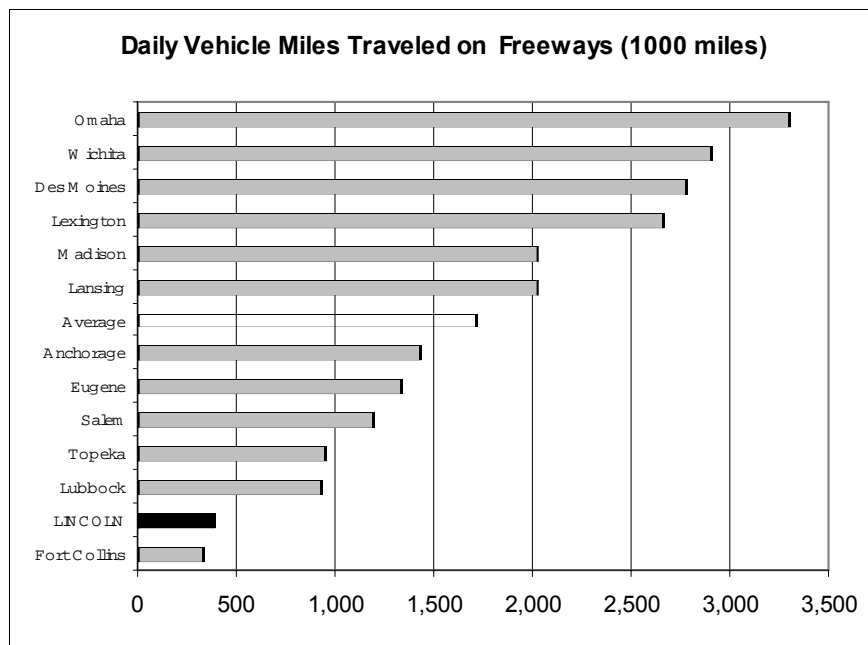
In Lincoln the amount of roadway per 1000 capita is 5.5 miles. This ranks 3rd among its peers and is 16 percent above the peer average.



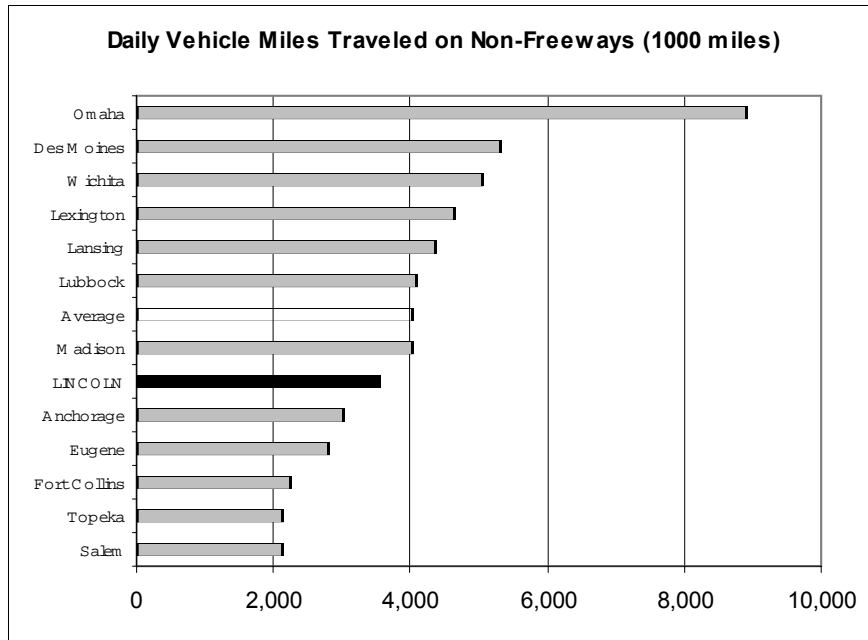
In Lincoln the amount of roadway per square mile of land is 15.4 miles. This ranks 1st among its peers and is 66 percent above the peer average.



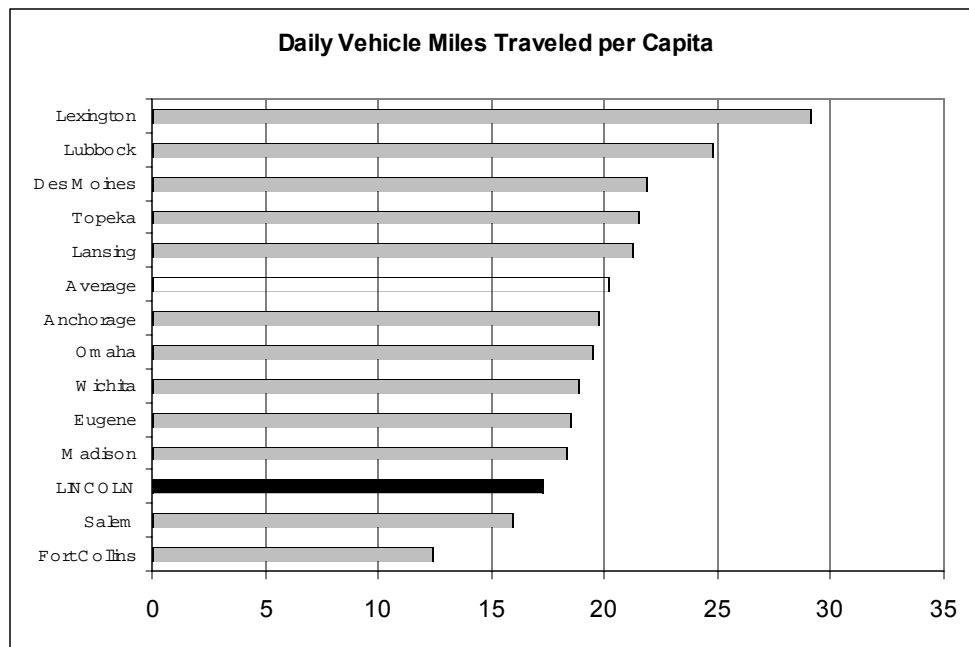
In Lincoln, the vehicle miles traveled (VMT) is 3.9 million miles per day. This ranks 10th among its peers and is 32 percent below the peer average. Freeways account for 10 percent of the daily VMT while non-freeways account for 90 percent.



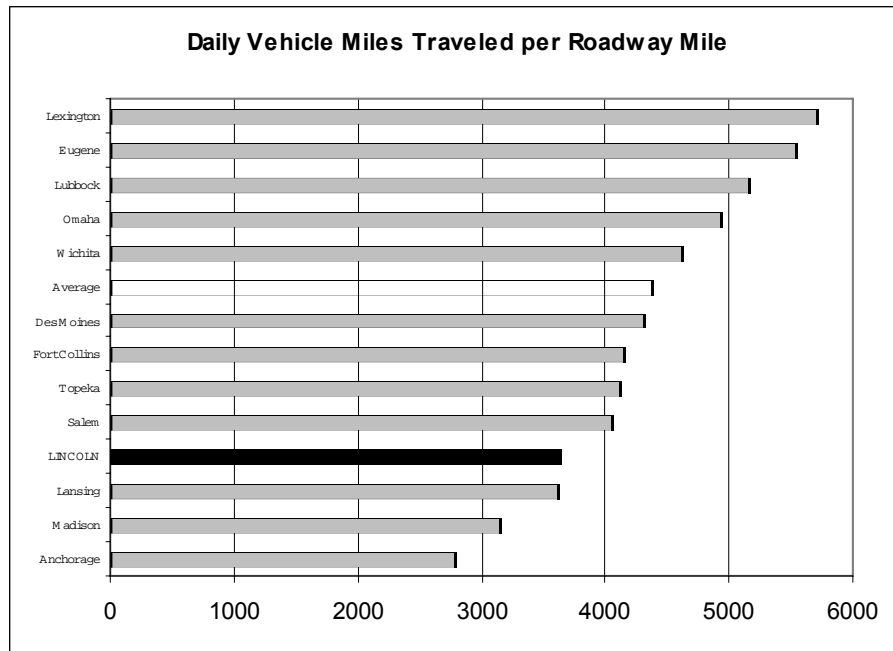
In Lincoln the total vehicle miles traveled on freeways is 0.4 million miles per day. This ranks 12th among its peers and is 77 percent below the peer average.



In Lincoln the total vehicle miles traveled on non-freeways is 3.5 million miles per day. This ranks 8th among its peers and is 12 percent below the peer average.

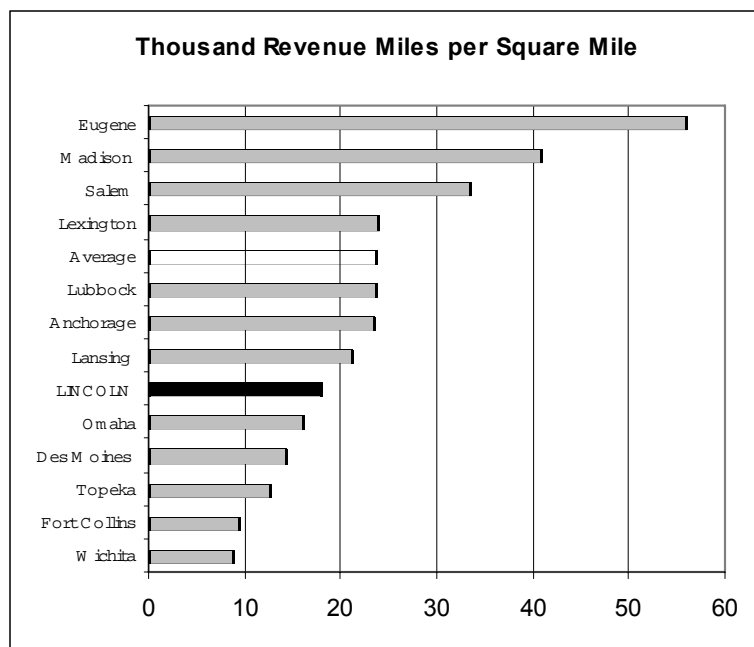


In Lincoln the daily vehicle miles traveled is 17.3 vehicle miles per capita. This ranks 11th among its peers and is 14 percent below the peer average.

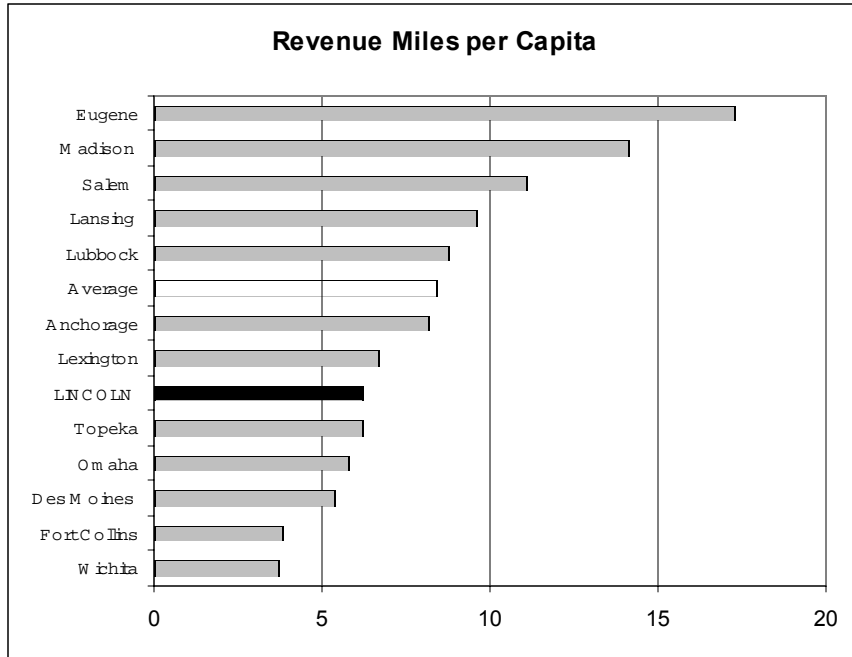


In Lincoln the daily vehicle miles traveled is 3,628 vehicle miles per roadway mile. This ranks 10th among its peers and is 17 percent below the peer average.

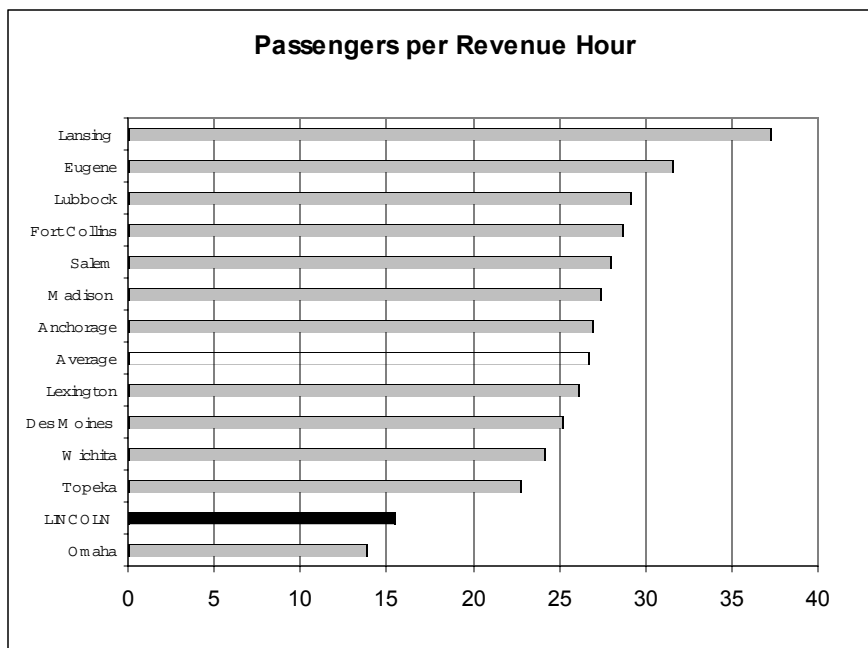
Regular Transit Service Comparisons



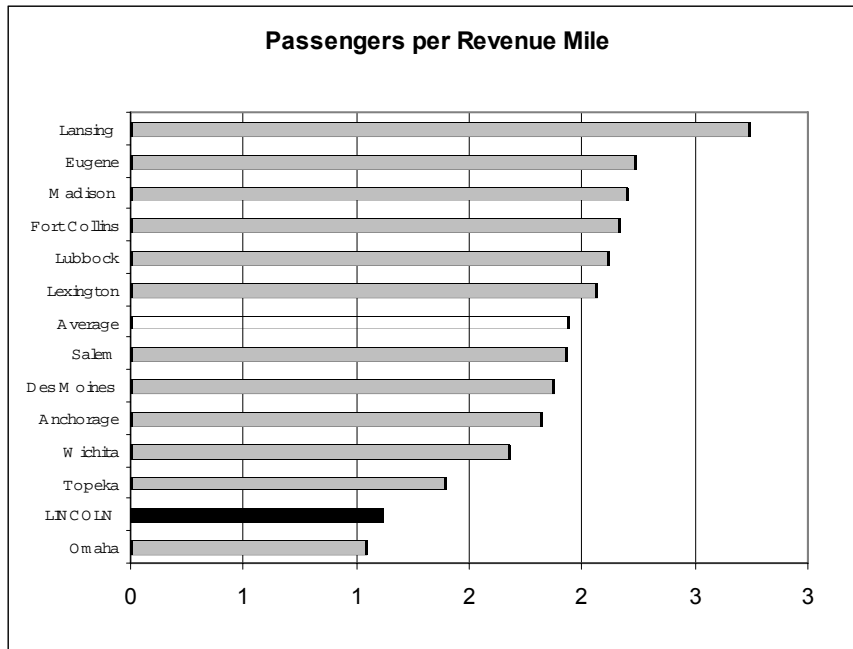
Lincoln's regular transit service revenue miles is 17,959 revenue miles per square mile. This ranks 8th among its peers and is 25 percent below the peer average.



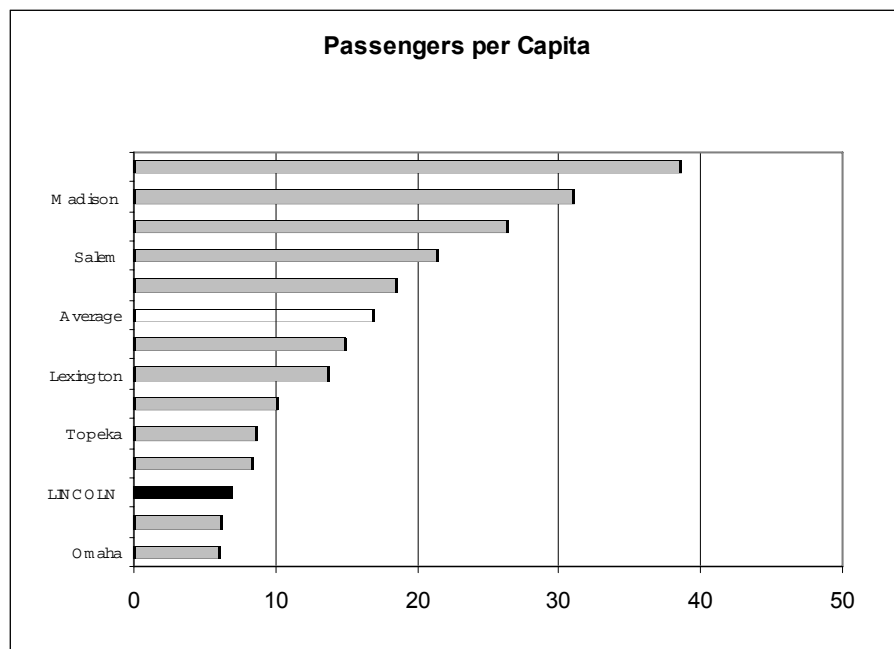
Lincoln's regular transit service revenue miles is 6.2 miles per capita. This ranks 8th among its peers and is 26 percent below the peer average.



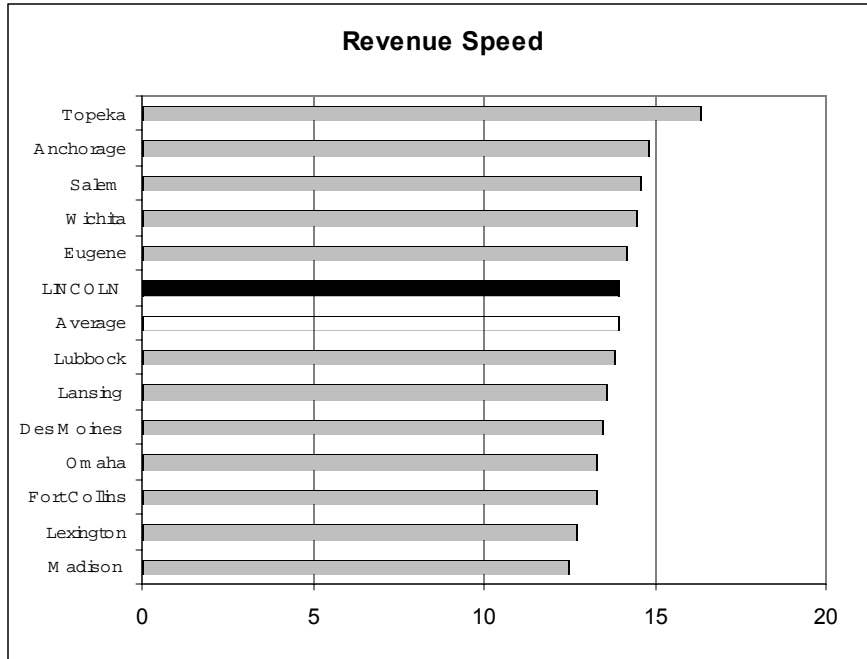
Lincoln's regular transit service carries 15.4 passengers per revenue hour. This ranks 12th among its peers and is 42 percent below the peer average.



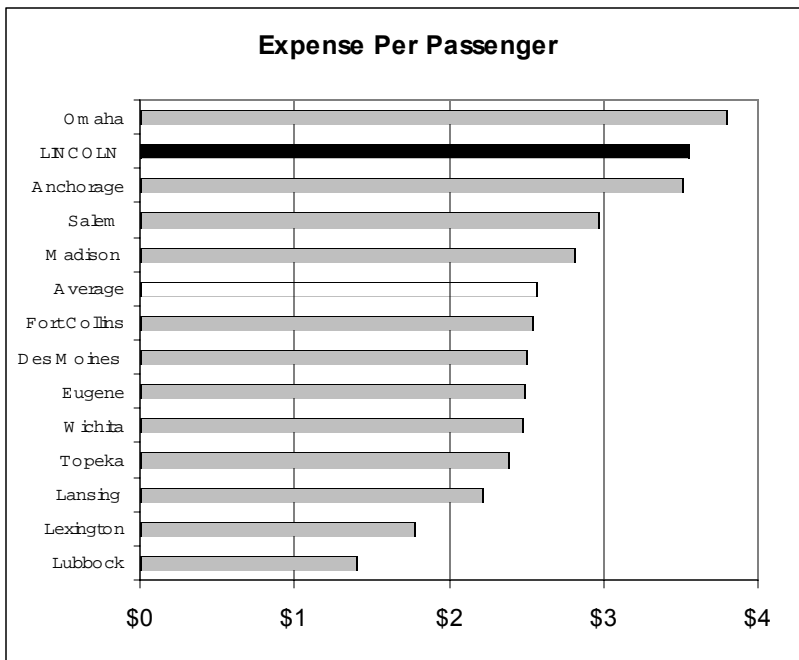
Lincoln's regular transit service carries 1.1 passengers per revenue mile. This ranks 12th among its peers and is 43 percent below the peer average.



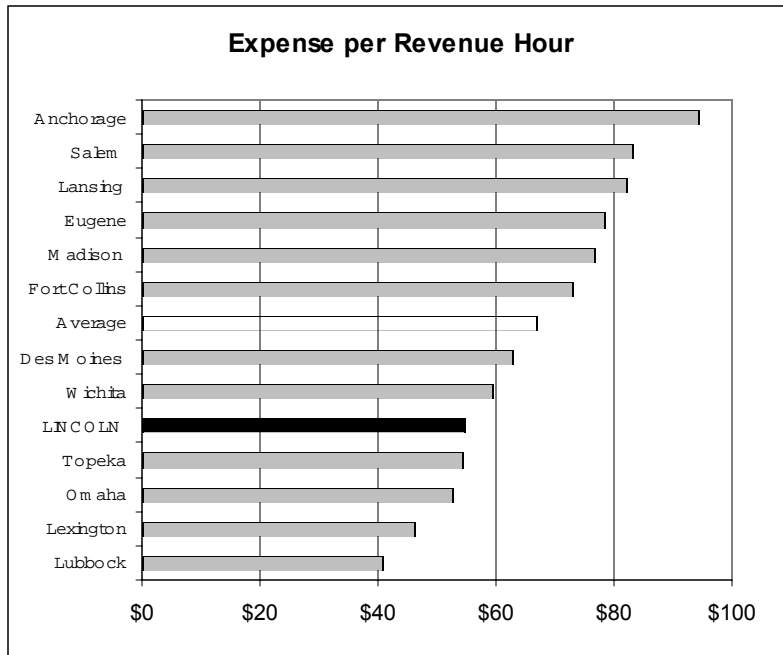
Lincoln's regular transit system carries 6.8 passengers per capita. This ranks 11th among its peers and is 60 percent below the peer average.



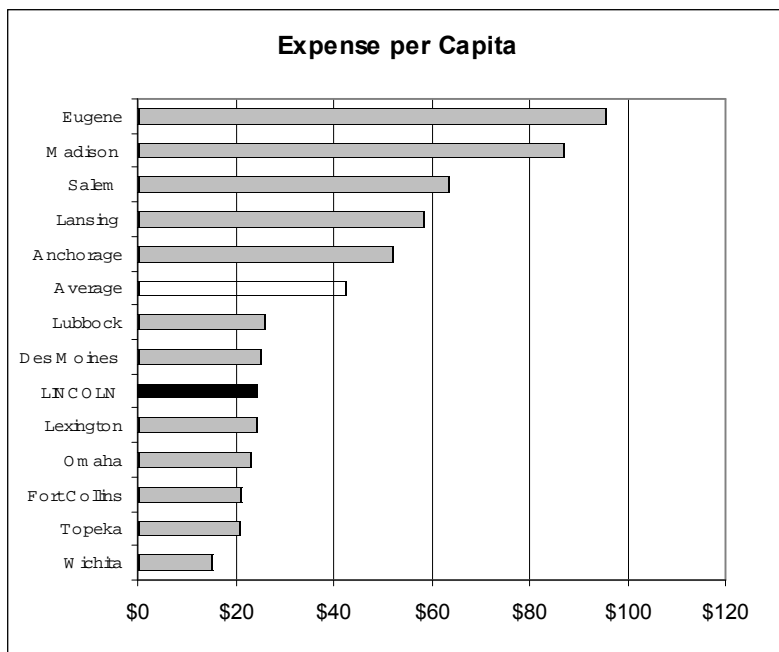
Lincoln's regular transit service revenue speed is 13.9 miles per hour. This ranks 6th among its peers and is equal to the peer average.



Lincoln's regular transit service operating cost is \$ 3.50 per passenger. This ranks 2nd among its peers and is 38 percent above the peer average.

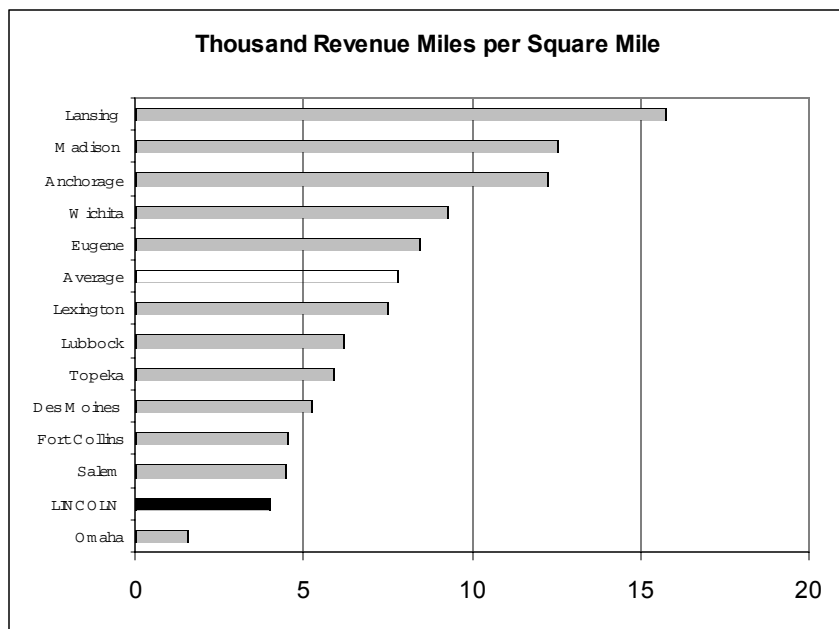


Lincoln's regular transit service operating cost is \$ 54.60 per revenue hour. This ranks 9th among its peers and is 18 percent below the peer average.

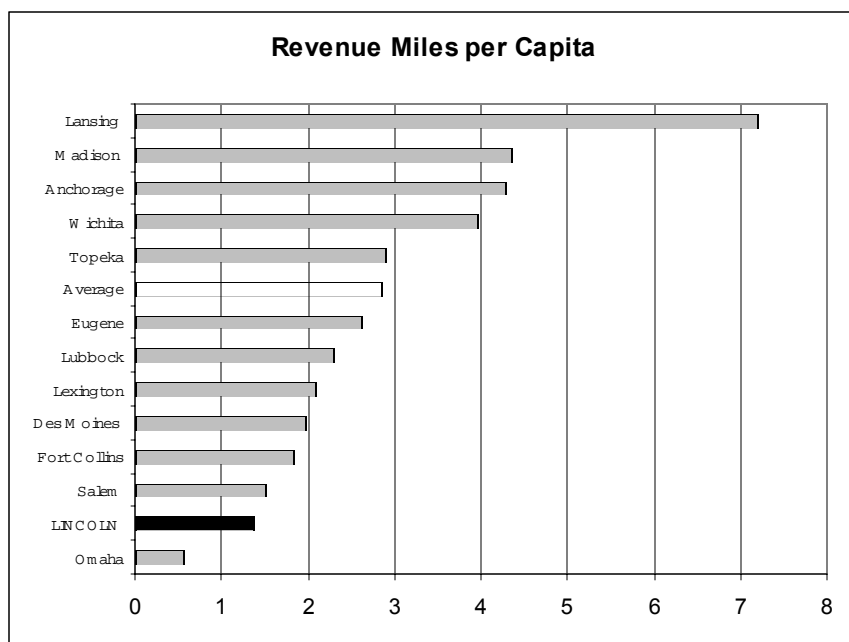


Lincoln's regular transit service operating cost is \$ 24.30 per capita. This ranks 8th among its peers and is 43 percent below the peer average.

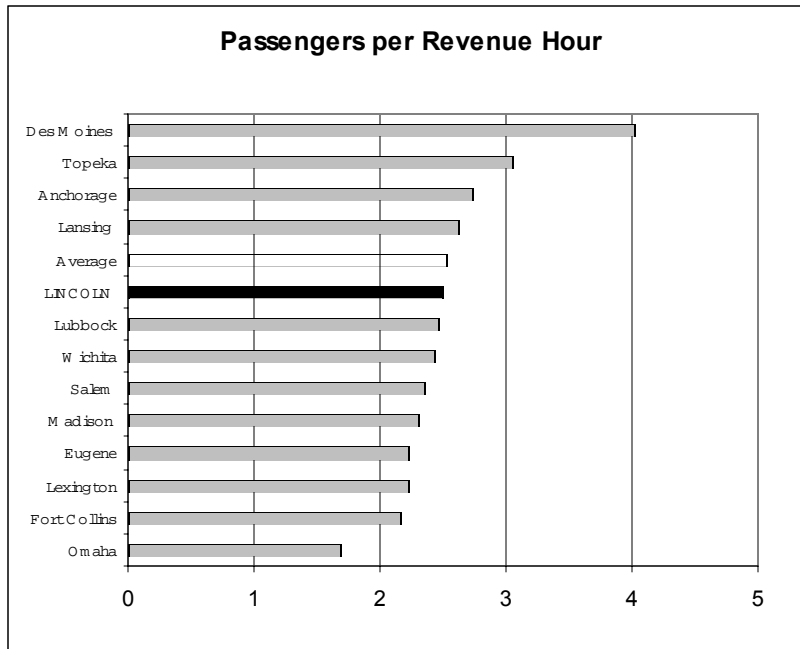
Demand-Responsive Transit Service Comparisons



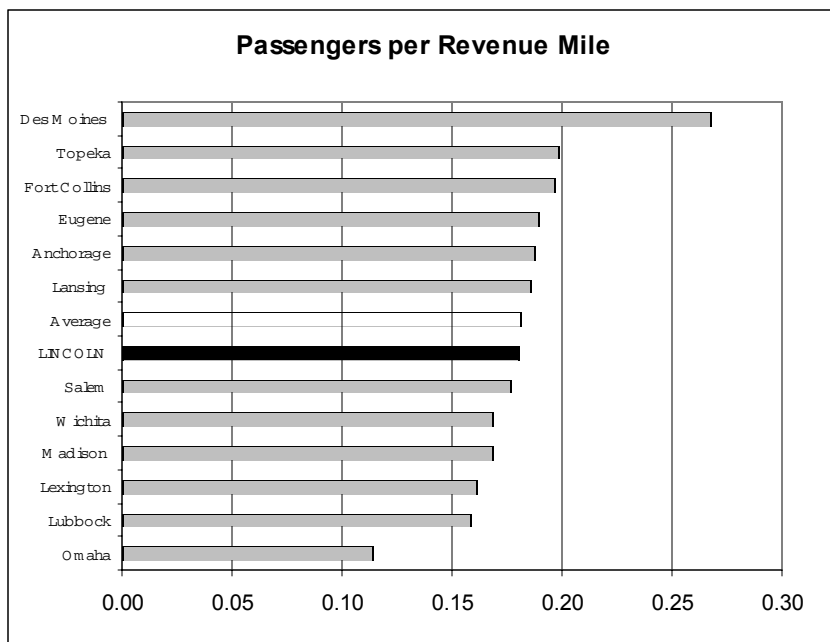
Lincoln's demand response service revenue miles is 3,955 revenue miles per square mile. This ranks 12th among its peers and is 53 percent below the peer average.



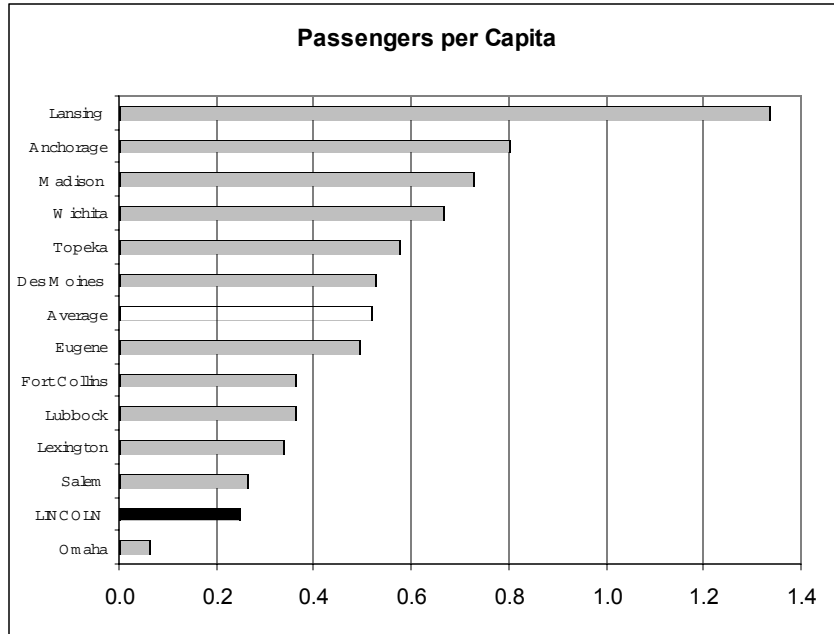
Lincoln's demand response service revenue miles is 1.4 miles per capita. This ranks 12th among its peers and is 52 percent below the peer average.



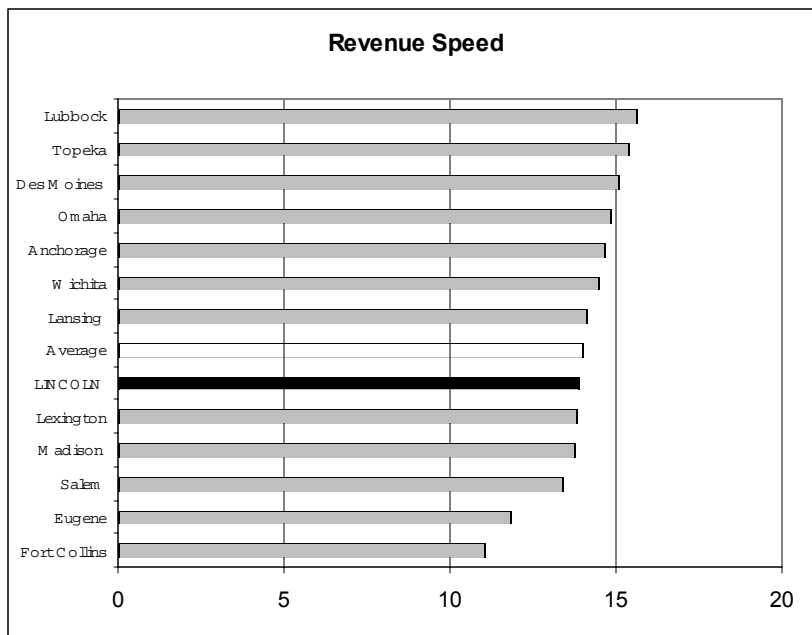
Lincoln's demand response service carries 2.5 passengers per revenue hour. This ranks 5th among its peers and is 1 percent below peer average.



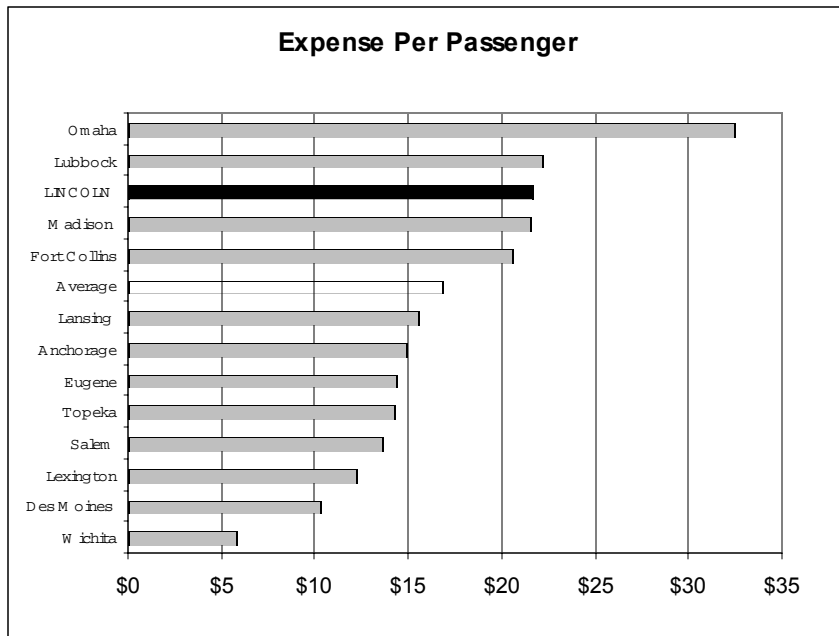
Lincoln's demand response service carries 0.18 passengers per revenue mile. This ranks 7th among its peers and is equal with the peer average.



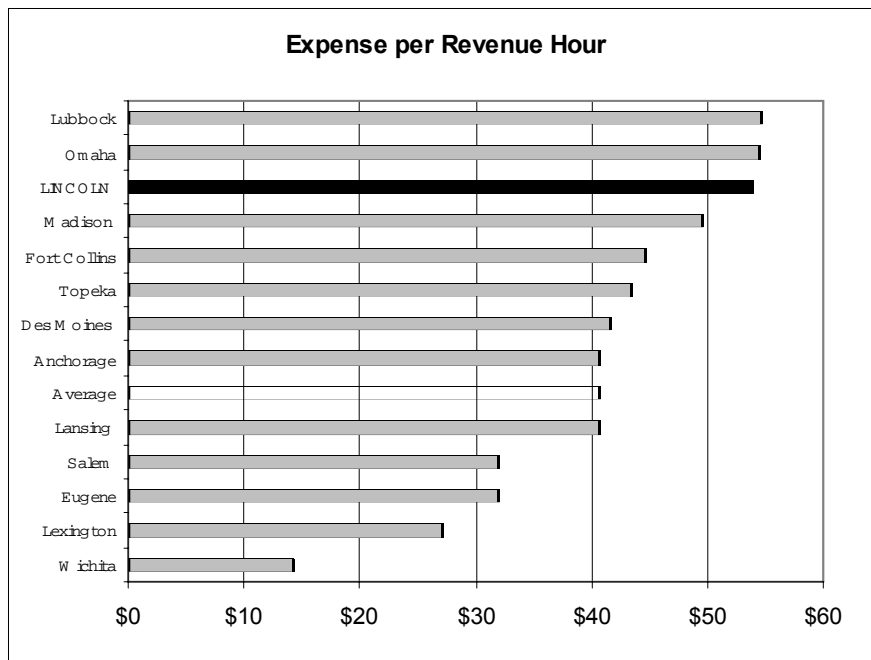
Lincoln's demand response service carries 0.25 passengers per capita. This ranks 12th among its peers and is 53 percent below the peer average.



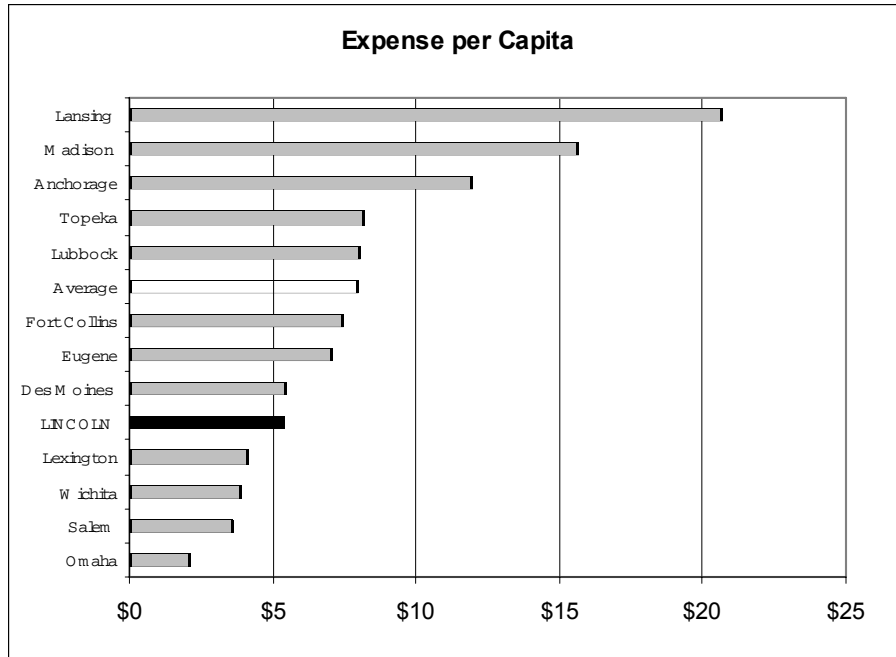
Lincoln's demand response service revenue speed is 13.9 miles per hour. This ranks 8th among its peers and is 1 percent below the peer average.



Lincoln's demand response service operating cost is \$ 21.60 per passenger. This ranks 3rd among its peers and is 28 percent above the peer average.

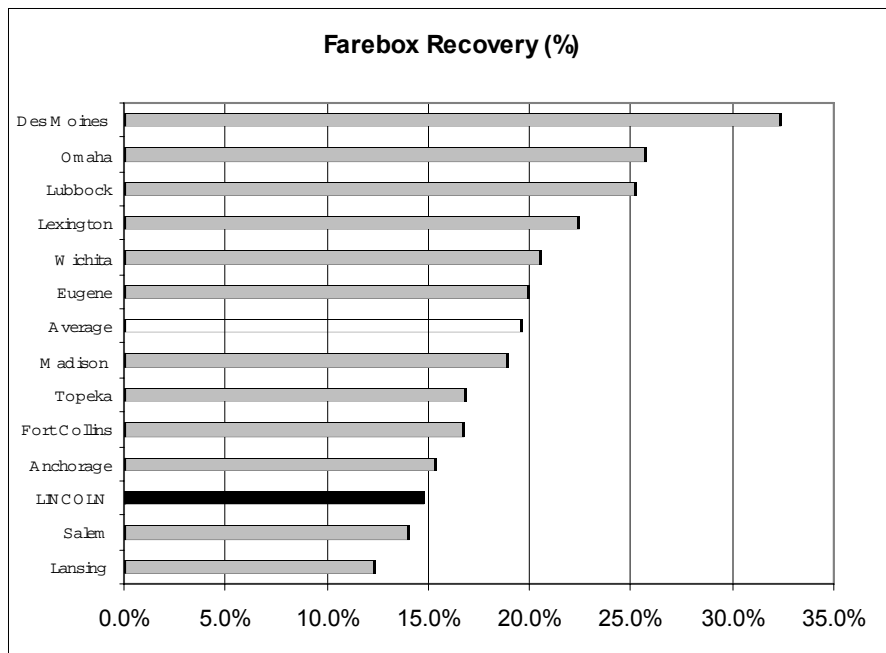


Lincoln's demand response service operating cost is \$ 54.60 per revenue hour. This ranks 3rd among its peers and is 33 percent above the peer average.

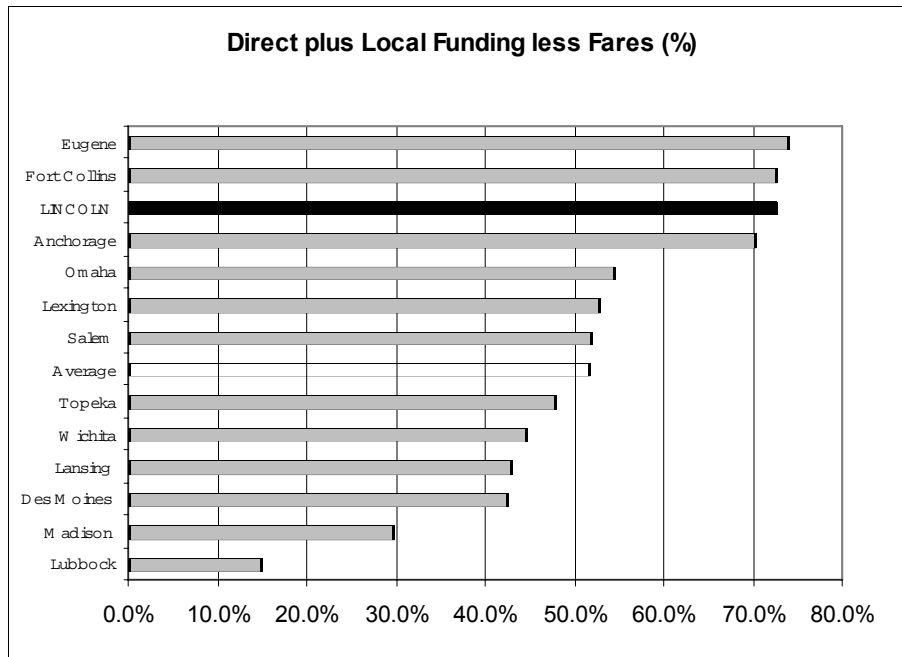


Lincoln's demand response service operating cost is \$ 5.30 per capita. This ranks 9th among its peers and is 33 percent below the peer average.

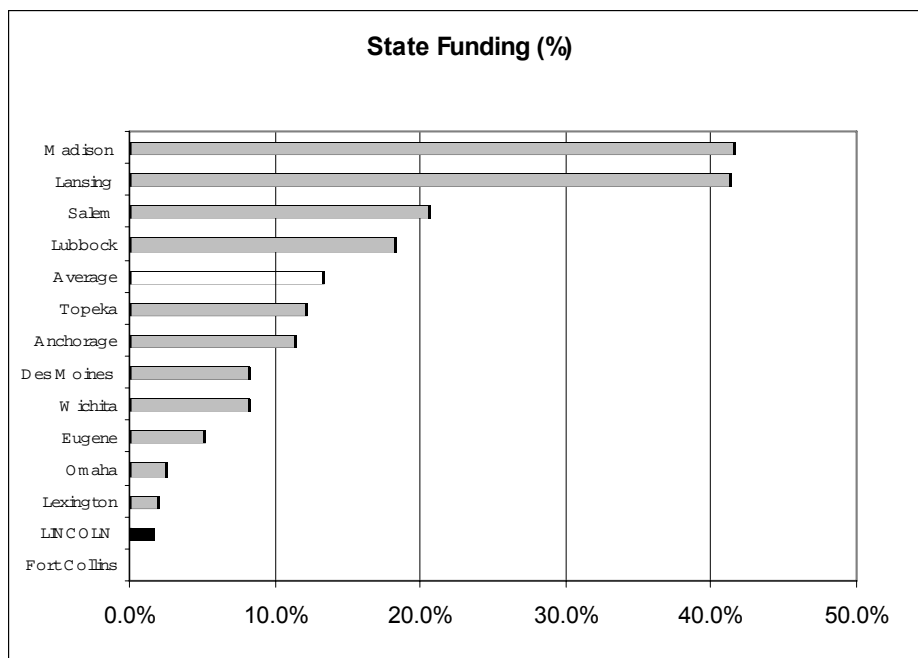
Transit Funding Comparisons



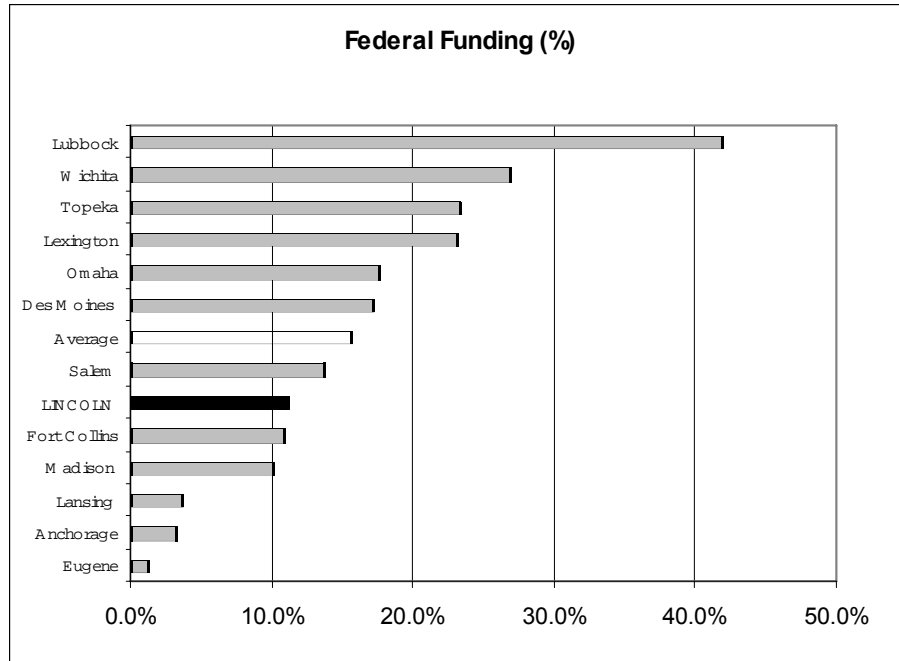
Lincoln's overall transit fare box recovery ratio is 14.7 percent. This ranks 11th among its peers and is 25 percent below the peer average.



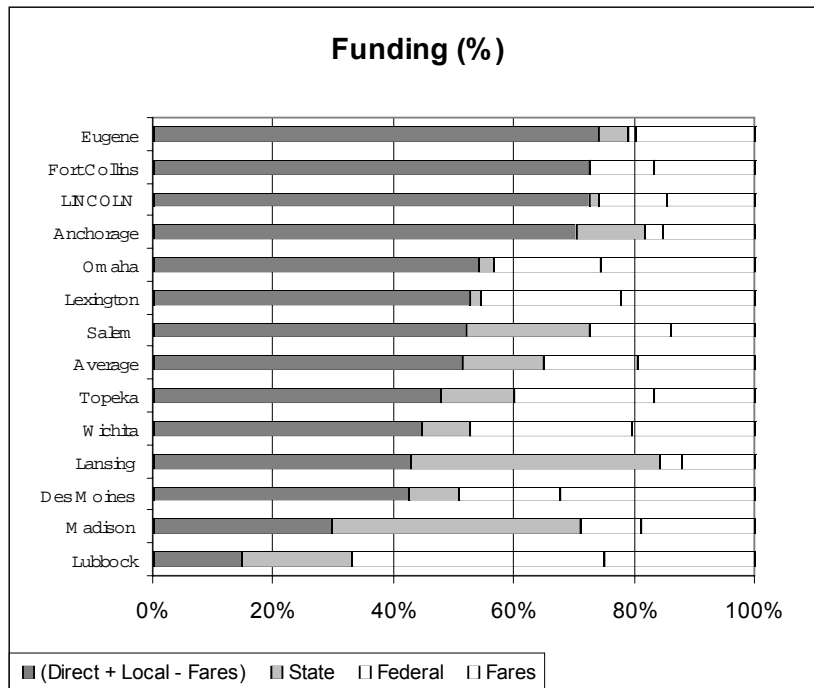
In Lincoln, locally generated funding as a percentage of total transit operating cost is 72.5 percent. This ranks 3rd among its peers and is 41 percent above the peer average.



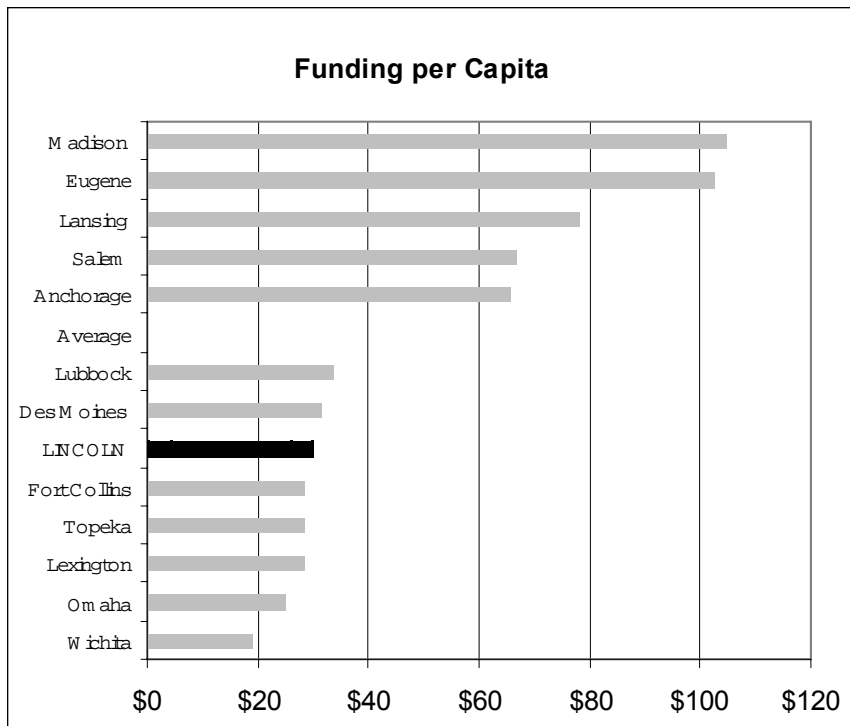
In Lincoln the percentage of state funding as of total transit operating cost is 1.6 percent. This ranks 12th among its peers and is 88 percent below the peer average.



In Lincoln the percentage of federal funding as of the total transit operating cost is 11.1 percent. This ranks 8th among its peers and is 29 percent below the peer average.



Lincoln's locally generated, state and federal funding and fare box recovery as percentage of the total transit operating cost is shown. Lincoln is significantly above average in local funding, but it is significantly below average in state funding. Lincoln is slightly below average in fare box recovery and federal funding as well.



Lincoln's total transit funding is \$ 29.60 per capita. This ranks 8th among its peers and is 36 percent below the peer average.



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